

CLAIMS

We claim:

1. A service provided to an application running on a computing device, the service comprising discovering information pertaining to a physical location of an interface on the computing device to a logical network, reporting to the application the discovered physical location information, and notifying the application when the reported physical location information changes.
2. The service of claim 1 wherein the service discovers information pertaining to an error range of the information pertaining to the physical location of the interface and reports to the application information pertaining to the error range.
3. The service of claim 1 wherein reporting discovered physical location information comprises reporting latitude, longitude, altitude, and a method used to discover the physical location information.
4. The service of claim 1 wherein reporting comprises recording what information was reported to what application and wherein notifying comprises checking records of what information was reported to what application.
5. The service of claim 1 further comprising consulting a reporting threshold set by the application and reporting only those changes whose magnitude exceeds the reporting threshold.
6. The service of claim 1 further comprising consulting a list of physical location discovery methods applicable to the interface.
7. The service of claim 6 wherein the service performs a plurality of physical location discovery methods listed as applicable to the interface, and wherein reporting comprises reporting to the application physical location information discovered from the plurality of methods.

8. The service of claim 1 further comprising converting the discovered physical location information into a common format before reporting it to the application.
- 5 9. The service of claim 1 further comprising notifying the application when information provided to it is supplemented by further information.
10. A computer-readable medium having instructions for providing a service to an application running on a computing device, the service comprising discovering information pertaining to a physical location of an interface on the computing device to a logical network, reporting to the application the discovered physical location information, and notifying the application when the reported physical location information changes.
- 10 11. A service provided to an application on a computing device, the service comprising discovering logical networks to which the computing device is attached, naming the logical networks in a manner that provides a mapping between the names given to the logical networks and the logical networks, discovering information about physical locations of interfaces on the computing device to the logical networks, providing the names and physical location information about the logical network interfaces to the application, and notifying the application when the information provided to it changes.
- 15 20 12. A computer-readable medium having computer-executable instructions for providing the service of claim 11.
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13. A method for an application running on a computing device to choose a configuration to use, the method comprising accessing a service provided by the computing device to retrieve physical location information about an interface on the computing device attached to a network, accessing a list that relates physical location to stored application configurations, and choosing a configuration that is related to the physical location of the network interface.
14. The method of claim 13 wherein the service informs the application when the physical location information provided to the application changes.
15. A computer-readable medium having computer-executable instructions for providing the method of claim 13.
16. A computer-readable medium having stored thereon a data structure, the data structure comprising:
- a first data field containing data representing a name of a logical network to which a computing device is connected;
 - a second data field containing data representing a globally unique identifier of an interface on the computing device through which the logical network is accessible; and
 - a third data field containing data representing a physical location of the interface on the computing device through which the logical network is accessible.
17. The data structure of claim 16 further comprising:
- a fourth data field containing data representing a type of connection from the computing device to the logical network; and
 - a fifth data field containing data representing a speed of the connection from the computing device to the logical network.